

6th International Conference and Exhibition on

NUTRITION

September 14-16, 2016 San Antonio, USA

Effect of bee glue (propolis) on hepatitis rats

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This study was conducted to evaluate the benefits of the Saudi honey gum (propolis) by means of reduction of its toxic substances that target the liver and affect its performance. The components of propolis were identified. The research sample included 42 adult male rat of healthy weight ranged from 255-287 grams. The samples were divided into six equal groups. The first group was fed the standard diet (negative control group) while 35 rat were injected with carbon tetrachloride under the skin (1.5 ml/ kg) in order to infect them with acute hepatitis. After 24 hours, the group of infected rat were divided and the second group (positive control group) was also fed a standard meal, while the other groups infected which were the third, fourth, fifth and sixth were fed on a diet with access to a standard concentration of Saudi honey gum of 200, 300, 400 and 500 mg per kg, respectively, through the mouth for 4 consecutive weeks. The results showed that propolis contains 41 compounds and out of these 17 compounds have been identified. Volatile oil was in proportion of 20.37%, aliphatic acids in 16.87%, esters in 15.48% and alcohols in 13.98%. The results showed a significant improved in biochemical parameters in hepatitis rats which were treated with propolis. Results also showed that propolis increased activity of antioxidant enzymes in the liver of hepatitis rats treated with propolis. The study concluded that propolis plays an effective role in protecting the liver from damage and inflammation that can be caused by the components of anti-oxidation and inflammation.

Biography

Hassan Abd El Raouf El-Hendy is a Professor of Nutrition and Food Science at Home Economics Department in the Faculty of Agriculture at Alexandria University, Egypt.

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